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ABSTRACT

In fiscal year 1995, about 26 million students in about 94,000 schools nationwide were served lunches each day through the National School Lunch Program (NSLP). In response to concerns raised about the amount of food thrown away by students (called plate waste), the General Accounting Office (GAO) surveyed a random sample of cafeteria managers in the public schools. Responses were received from cafeteria managers in about 80 percent of the 81,911 public schools that participated in the NSLP during the 1993-94 school year. Cafeteria managers varied in the extent to which they perceived plate waste as a problem in their school. Although the majority perceived plate waste as little or no problem, almost one in four reported that it was at least a moderate problem. Managers in elementary schools were more likely to perceive waste as a problem than managers of middle or high schools. Cafeteria managers strongly agreed on some of the reasons for and ways to reduce plate waste. For example, 78 percent cited students' attention being on recess, free time, or socializing rather than on eating. Almost 80 percent believed that allowing students to select only what they want to eat would reduce plate waste. Most managers reported satisfaction with the federal commodities they received for use in the lunch program. However, about 10 percent reported that they would prefer not to receive at least half of the different types of commodities provided. Appendices contain a list of estimates with sampling errors over 5 percent, methodological notes, survey results, and a list of contributors. A total of 18 figures and 3 tables are included. (LMI)

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United States General Accounting Office

GAO

Report to the Chairman, Committee on Economic and Educational Opportunities, House of Representatives

July 1996

SCHOOL LUNCH PROGRAM

Cafeteria Managers' Views on Food Wasted by Students

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GAO/RCED-96-191

GAO

United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-271615

July 18, 1996

The Honorable William F. Goodling
Chairman, Committee on Economic and
Educational Opportunities
House of Representatives

Dear Mr. Chairman:

In fiscal year 1995, about 26 million students in about 94,000 schools (public and private schools and residential child care institutions) nationwide were served lunches each day through the National School Lunch Program (NSLP). The program's total federal costs for this period were over $5 billion—about $4.5 billion in cash reimbursements and over $600 million in commodity foods, such as beef patties, flour, and canned vegetables. The schools participating in the program had to offer lunches that included one serving each of milk, meat or a meat alternate (such as peanut butter), and bread or a bread alternate (such as pasta) and at least two servings of vegetables and/or fruits. Some concerns have been raised about the amount of food provided in the school lunch program that students throw away. This discarded food is commonly referred to as plate waste.

To help address these concerns, you asked us to study plate waste in the NSLP. Specifically, we agreed to survey a random sample of cafeteria managers in the public schools nationwide that participate in the program to obtain the managers' perceptions on the (1) extent to which plate waste is a problem, (2) amount of plate waste by type of food, and (3) reasons for and ways to reduce plate waste. We also agreed to determine whether the perceptions of managers differed by their school's level (elementary, middle, or high school), their school's location (urban, suburban, or rural), and the proportion of their school's lunches served free and at a reduced price. In addition, we agreed to ask cafeteria managers about their level of satisfaction with the federal commodities used in the NSLP.[1]

Our survey results represent the views of cafeteria managers in about 80 percent of the 81,911 public schools nationwide that participated in the NSLP in the 1993-94 school year, the latest year for which a comprehensive

[1]In addition to our current work, we recently assessed the percent of selected nutrients (calories, protein, saturated fat, and total fat) wasted by students with various characteristics. See Waste From School Lunches (GAO/RCED-96-128R, May 8, 1996).

list of public schools was available.[2] All reported differences between subgroups of respondents (e.g., cafeteria managers in urban versus rural schools), unless otherwise stated, are statistically significant.[3]

Results in Brief

Cafeteria managers varied in the extent to which they perceived plate waste as a problem in their school. Although the majority perceived plate waste as little or no problem, almost one in four reported that it was at least a moderate problem. By school level, managers in elementary schools were more likely to perceive waste as a problem than managers in middle or high schools. By school location and by schools serving different proportions of free and reduced-price lunches, the extent to which managers viewed waste as a problem did not differ.

The amount of waste varied by the type of food included in the school lunch, according to cafeteria managers. For example, the average amount of waste for cooked vegetables was 42 percent, compared with 11 percent for milk.

Cafeteria managers strongly agreed on some of the reasons for and ways to reduce plate waste. For example, 78 percent cited students' attention being on recess, free time, or socializing rather than eating as a reason for waste. Almost 80 percent believed that allowing students to select only what they want to eat would reduce plate waste. We found few variations in the responses of cafeteria managers concerning the reasons for and ways to reduce plate waste by their school's level, location, and proportion of free and reduced-price lunches served.

Most cafeteria managers reported satisfaction with the federal commodities they received for use in the school lunch program. However, about 10 percent reported that they would rather not receive at least half of the different types of commodities provided.

Background

The NSLP is designed to provide school children with nutritionally balanced and affordable lunches to safeguard their health and well-being. The program, administered by the U.S. Department of Agriculture's Food and Consumer Service, is available in all 50 states, the District of Columbia, and the U.S. territories.

[2]Approximately 94 percent of all public schools participated in the NSLP in the 1993-94 school year.

[3]A statistically significant difference means that the difference between subgroups is too large to be attributed to chance.

The schools participating in the NSLP receive a cash reimbursement for each lunch served. In turn, the schools must serve lunches that meet federal nutritional requirements and offer lunches free or at a reduced price to children from families whose income falls at or below certain levels. For school year 1995-96, the schools were reimbursed $1.795 for each free lunch, $1.395 for each reduced-price lunch, and $0.1725 for each full-price lunch.

Furthermore, for each lunch served, the schools receive commodity foods—14.25 cents' worth in school year 1995-96. The Department provides a billion pounds of commodity foods annually to states for use in the NSLP. States select commodity foods from a list of more than 60 different kinds of food, including fresh, canned, and frozen fruits and vegetables; meats; fruit juices; vegetable shortening and oil; and flour and other grain products. The variety of commodities depends on the quantities available and market prices. According to the Department, federal commodities account for about 20 percent of the food in the school lunch program.

Through school year 1995-96, the schools were required to offer lunches that met a "meal pattern" established by the Department. The meal pattern specified that a lunch must include five items—a serving of meat or meat alternate; two or more servings of vegetables and/or fruits; a serving of bread or bread alternate; and a serving of milk. The meal pattern was designed to provide nutrients sufficient to approximate one-third of the National Academy of Sciences' Recommended Dietary Allowances.

Effective school year 1996-97, the schools participating in the program will be required to offer lunches that meet the Dietary Guidelines for Americans. Among other things, these guidelines, which represent the official nutritional policy of the U.S. government, recommend diets that are low in fat, saturated fat, and cholesterol. In meeting these guidelines, the schools may use any reasonable approach, within guidelines established by the Secretary of Agriculture, including using the school meal pattern that was in effect for the 1994-95 school year.

All students attending the schools that participate in the NSLP are eligible to receive an NSLP lunch. In fiscal year 1995, about 58 percent of the eligible students participated in the program. About 49 percent of the participating students received free lunches, 7 percent received reduced-price lunches, and 44 percent received full-price lunches. The students who do not participate in the program include those who bring lunch from home, eat

off-campus, buy lunch a la carte at school or from a school canteen or vending machine, or do not eat at all.

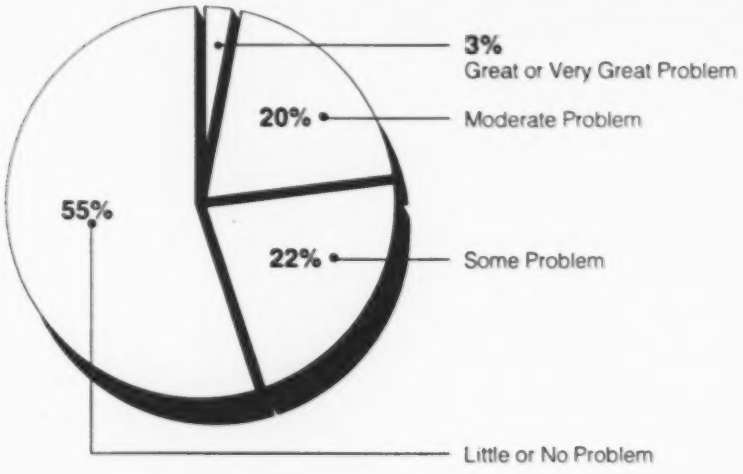
Concerns about plate waste prompted the introduction into the NSLP of the offer versus serve (OVS) option more than a decade ago. Under this option, a school must offer all five food items in the NSLP meal pattern, but a student may decline one or two of them. In a school that does not use this option, a student must take all five items. All high schools must use the OVS option, and middle and elementary schools may offer it at the discretion of local officials. According to a 1993 Department report, 71 percent of the elementary schools and 90 percent of the middle schools use the OVS option.

Extent to Which Cafeteria Managers Perceived Plate Waste as a Problem

Cafeteria managers varied in the extent to which they perceived plate waste as a problem in their school during the 1995-96 school year. Ninety percent of the managers provided an opinion on plate waste. The majority of those with an opinion did not perceive it as a problem. However, 23 percent of those with an opinion reported that it was at least a moderate problem.[4] Figure 1 presents cafeteria managers' perceptions of the extent to which plate waste was a problem in their school.

[4]The sampling error for percents presented in this report is plus or minus no more than 5 percentage points, unless otherwise indicated in app. I.

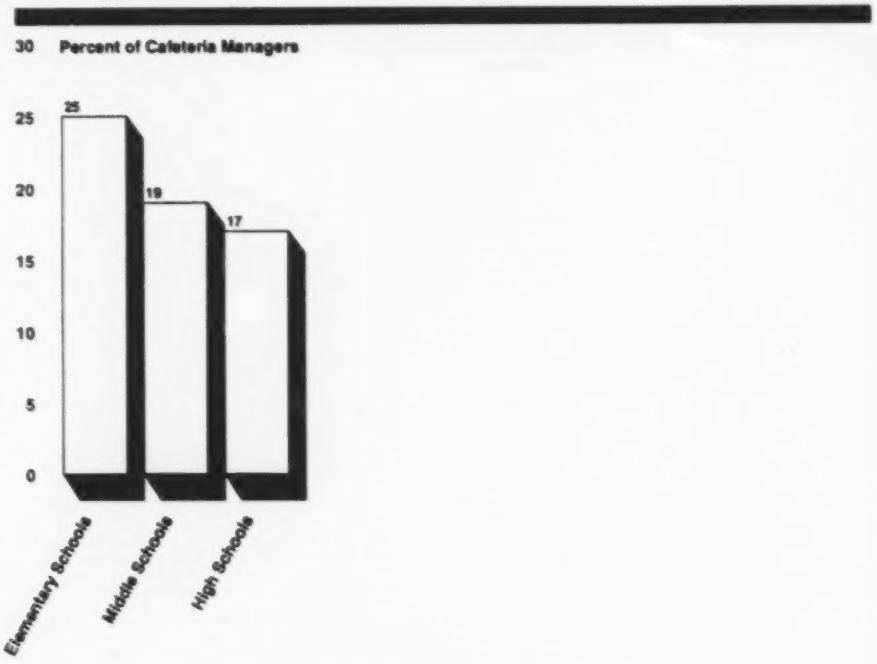
Figure 1: Extent to Which Cafeteria Managers Perceived Plate Waste From School Lunches as a Problem in Their School, 1995-96 School Year



Note: This figure is based on the responses of the 90 percent of the cafeteria managers who had an opinion on the extent to which plate waste from school lunches was a problem in their school. The remaining 10 percent did not know whether plate waste was a problem.

By school level, we found some variation in cafeteria managers' perceptions of plate waste. As figure 2 shows, managers at elementary schools were more likely than those at middle or high schools to report that plate waste from school lunches was at least a moderate problem during the 1995-96 school year.

Figure 2: Percent of Cafeteria Managers Reporting That Plate Waste From School Lunches Was at Least a Moderate Problem, by School Level, 1995-96 School Year

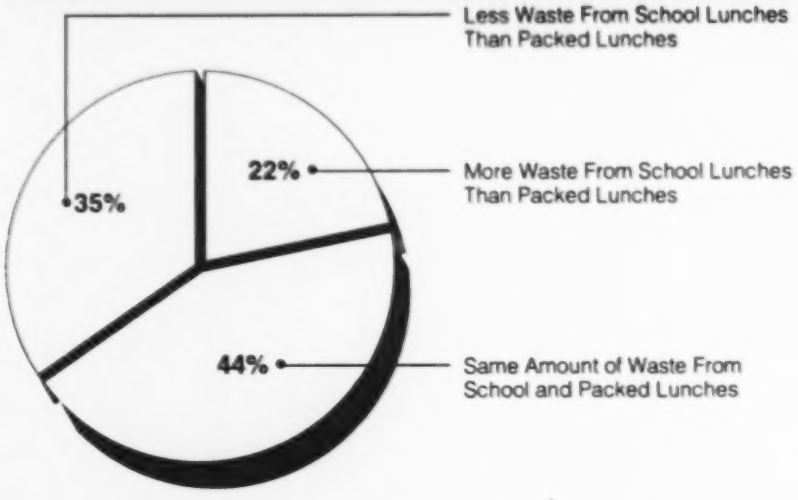


Note: The difference is not statistically significant between middle and high schools.

By school location and by schools serving different proportions of free and reduced-price lunches, we found no statistically significant differences in cafeteria managers' perceptions of plate waste.

We also considered the extent to which cafeteria managers perceived plate waste as a problem by asking them to compare the amount of waste from school lunches with the amount of waste from packed lunches from home. Sixty-three percent of the managers were able to make this comparison. Of these, 79 percent believed that the amount from school lunches was less than or the same as the amount from packed lunches. (See fig. 3.)

Figure 3: Cafeteria Managers' Comparison of the Amount of Plate Waste From School Lunches With the Amount of Waste From Packed Lunches From Home


Less Waste From School Lunches Than Packed Lunches
35%
22%
More Waste From School Lunches Than Packed Lunches
44%
Same Amount of Waste From School and Packed Lunches

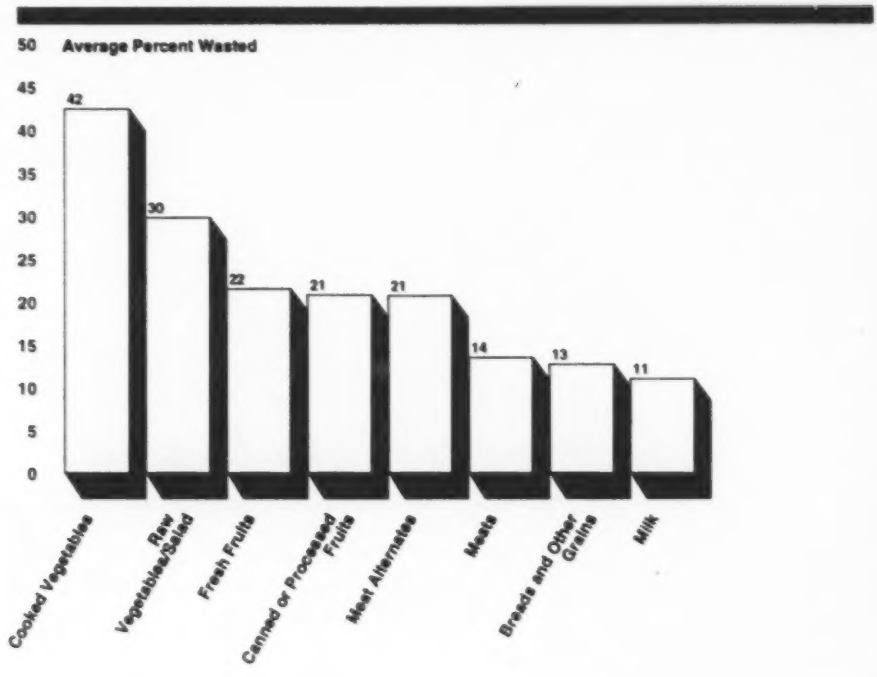
Note: This figure is based on the responses of the 63 percent of the cafeteria managers who could differentiate between the amounts of plate waste from school lunches and from packed lunches from home. For the remaining 37 percent, 21 percent reported few, if any, packed lunches at their school, while the other 16 percent could not tell the difference between packed and school lunch waste. The percents in this figure do not add to 100 because of rounding.

Amount of Plate Waste by Food Type

Cafeteria managers reported large variations in the amount of waste from eight different types of food that may be included as part of the school lunch. For each food type, managers reported how much of the portions served, on average, was wasted. On the basis of the managers' responses, we estimate that the average amount wasted ranged from a high of 42 percent for cooked vegetables to a low of 11 percent for milk.[5] Figure 4 shows our estimate of the average percent of waste for each of the eight food types.

[5]To estimate the percent of waste for each food type, we substituted percents for the descriptions of the amount of food students throw away or waste that were provided in the survey (i.e., "hardly any or none" is 0 percent, "less than half" is 25 percent, "about half" is 50 percent, "more than half" is 75 percent, and "all or almost all" is 100 percent). We then averaged these percents for all of the cafeteria managers responding to our survey.

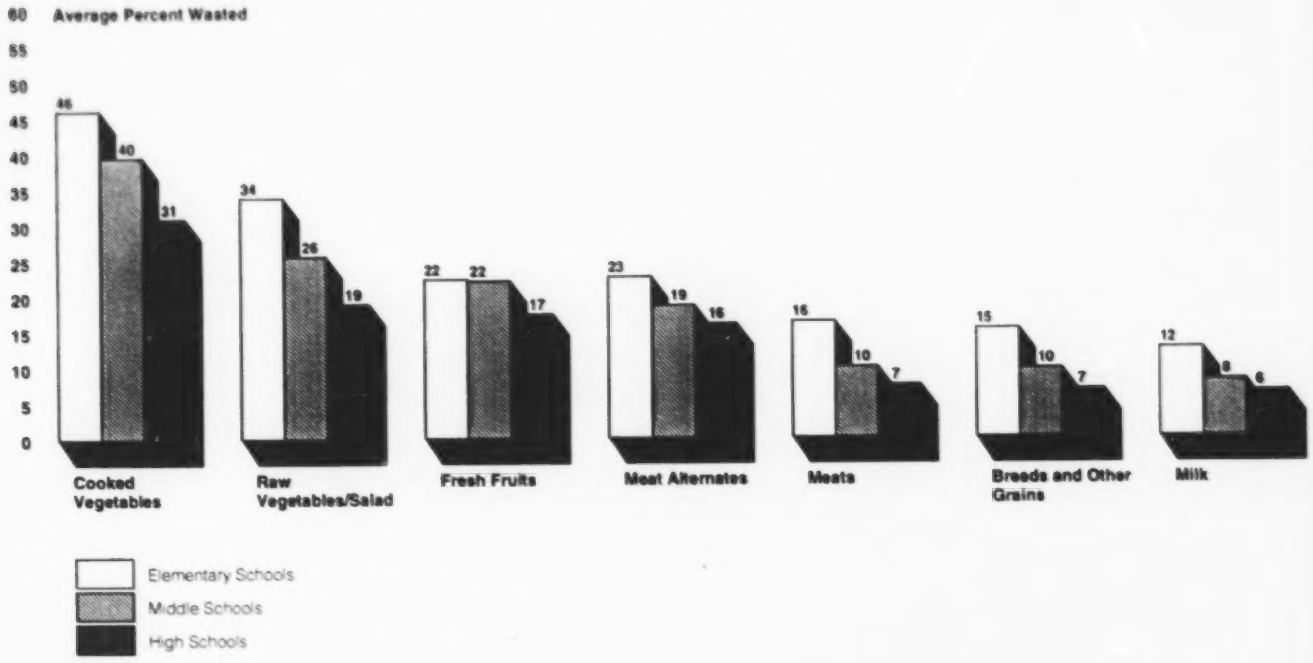
Figure 4: Amount of Food Portion Wasted, by Food Type



Source: GAO's analysis of survey data.

By school level, the amount of waste varied for all food types except canned or processed fruits. In general, the waste reported for each food type was highest in the elementary schools and lowest in the high schools. (See fig. 5.)

Figure 5: Variation in Amount of Waste, by School Level, for Seven Food Types

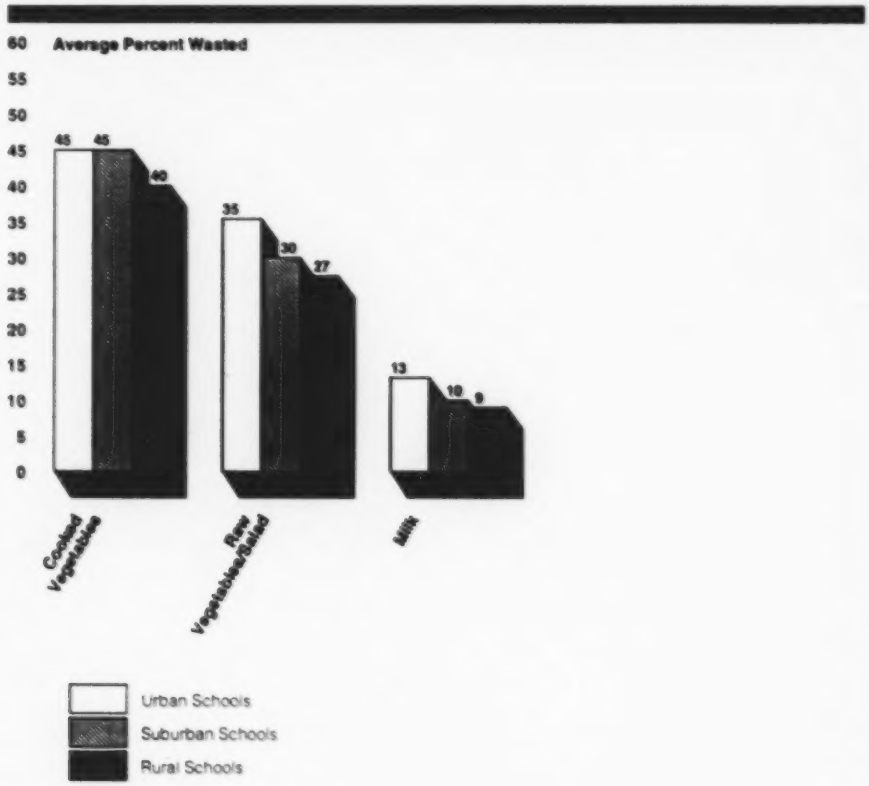


Note: Differences in the amount of waste are not statistically significant between elementary and middle schools for fresh fruits and between middle and high schools for meat alternates, meats, and milk.

Source: GAO's analysis of survey data.

By school location, the amount of waste varied for three food types—cooked vegetables, raw vegetables/salads, and milk. For example, for each of these food types, the urban schools reported more waste than the rural schools. (See fig. 6.)

Figure 6: Variation in Amount of Waste, by School Location, for Three Food Types

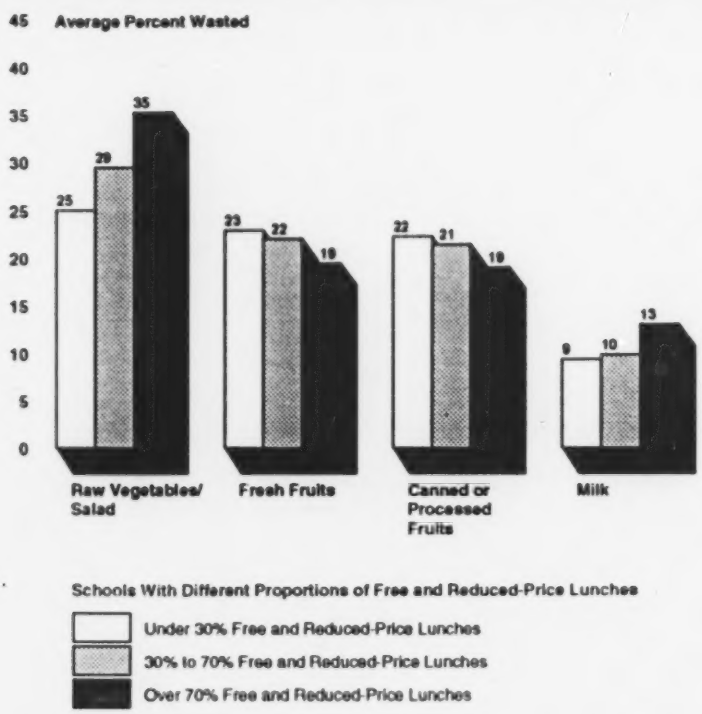


Note: Differences in the amount of waste are not statistically significant between urban and suburban schools for cooked vegetables and between suburban and rural schools for raw vegetables/salad and milk.

Source: GAO's analysis of survey data.

By schools serving different proportions of free and reduced-price lunches, the average amount of waste varied for four food types—raw vegetables/salads, fresh fruits, canned or processed fruits, and milk. (See fig. 7.)

Figure 7: Variation in Amount of Waste, by Schools Serving Different Proportions of Free and Reduced-Price Lunches, for Four Food Types



Note: Differences in the amount of waste are not statistically significant between schools serving under 30 percent free and reduced-price lunches and schools serving 30 to 70 percent free and reduced-price lunches for fresh fruits, canned or processed fruits, and milk. In addition, differences in the amount of waste are not statistically significant between schools serving 30 to 70 percent free and reduced-price lunches and schools serving over 70 percent free and reduced-price lunches for fresh fruits and canned or processed fruits.

Source: GAO's analysis of survey data.

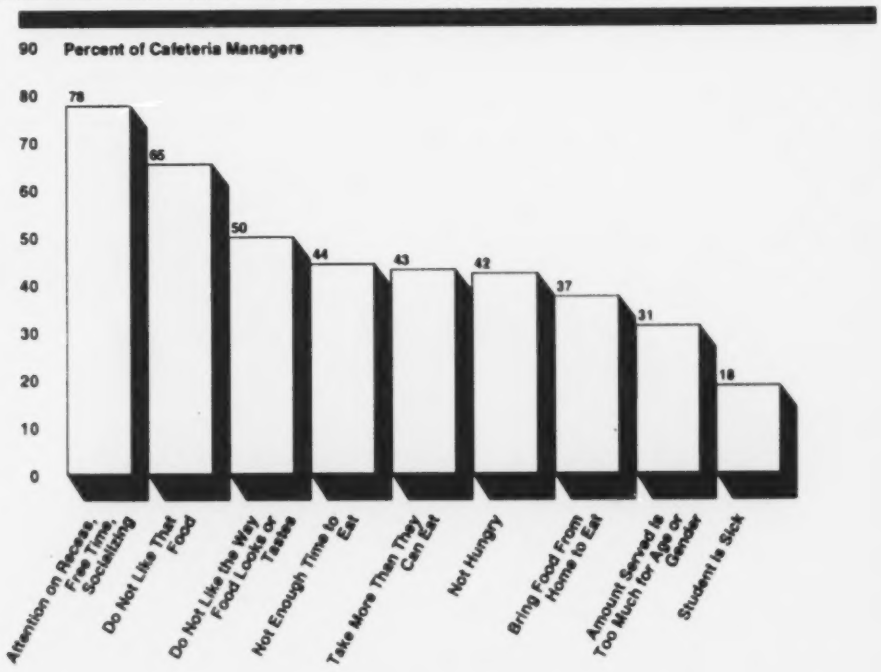
Reasons for and Ways to Reduce Plate Waste

When responding to a list of possible reasons for plate waste at their school, the cafeteria managers most frequently selected a nonfood reason—"student attention is more on recess, free time or socializing than eating." When responding to a list of possible ways to reduce plate waste, the managers most often viewed actions that would involve students, such as letting students select only what they want, as more likely to reduce plate waste than other actions.

Reasons for Plate Waste

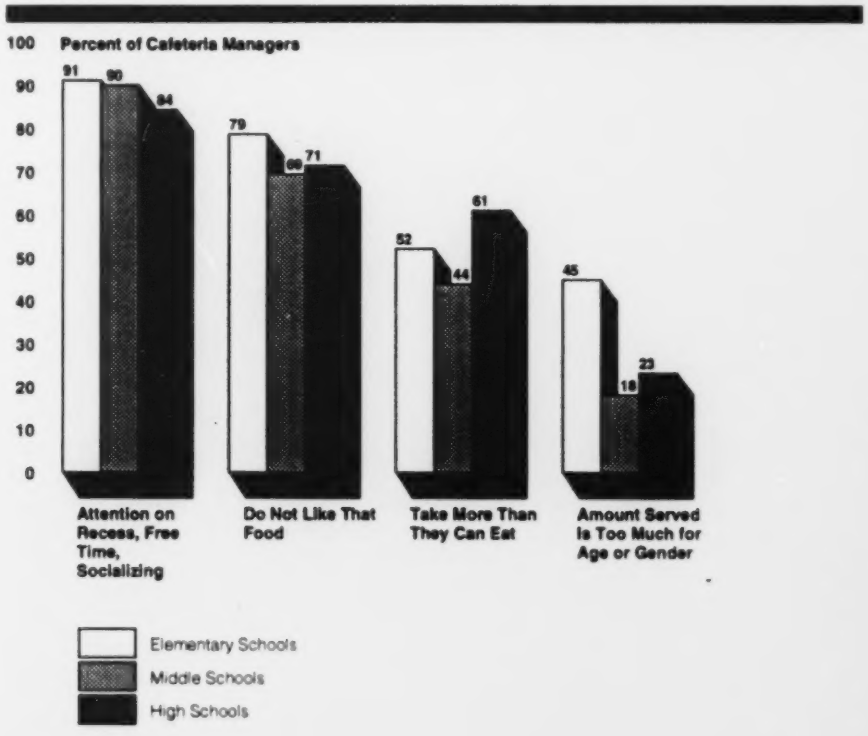
Seventy-eight percent of the cafeteria managers cited a nonfood reason—students' attention on recess, free time, or socializing—when asked why students at their school did not eat all of their school lunch. Figure 8 shows the percent of managers who identified each of the nine reasons listed in our survey as either a minor, moderate, or major reason for plate waste in their school.

Figure 8: Reasons for Plate Waste Cited by Cafeteria Managers



By school level, the percent of managers selecting a reason for plate waste varied for four of the reasons provided in our survey. (See fig. 9.) For example, elementary school managers were much more likely than middle or high school managers to report "amount served is too much for age or gender" as a reason for plate waste.

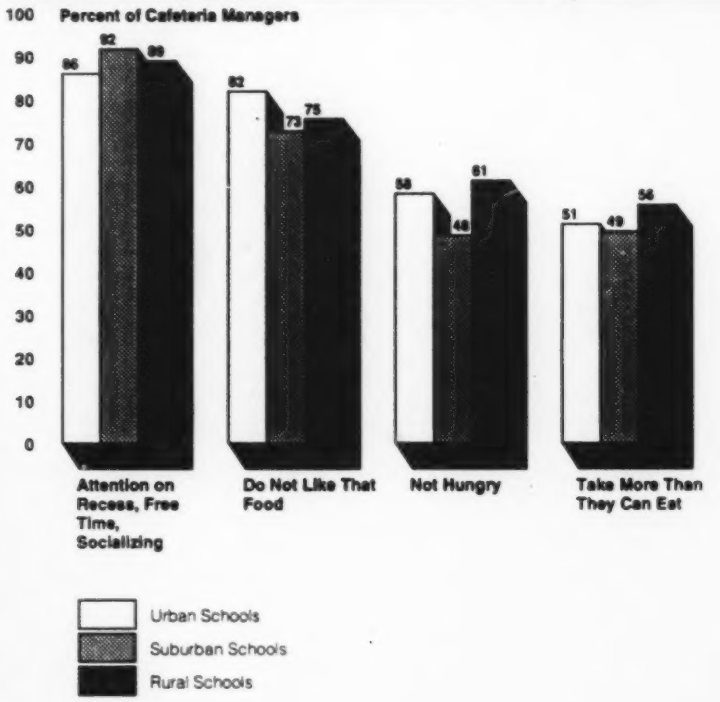
Figure 9: Variation in Reasons for Plate Waste Cited by Cafeteria Managers, by School Level



Note: The difference is not statistically significant between elementary and middle schools for "attention on recess, free time, socializing" and between middle and high schools for "attention on recess, free time, socializing," "do not like that food," and "amount served is too much for age or gender."

By school location, the percent of cafeteria managers selecting a reason for plate waste varied for four of the reasons provided in our survey. (See fig. 10.) For example, managers at urban schools were more likely than those at suburban and rural schools to report that students "do not like that food" as a reason for plate waste.

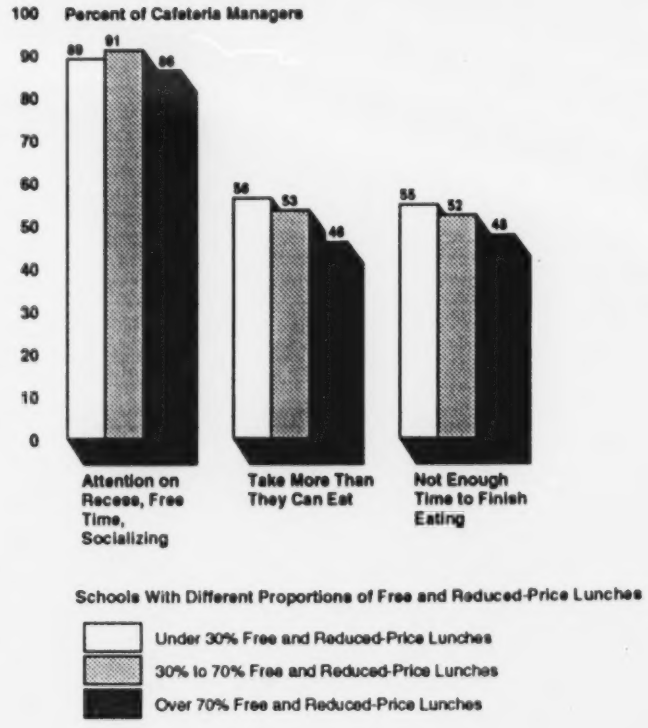
Figure 10: Variation in Reasons for Plate Waste Cited by Cafeteria Managers, by School Location



Note: The difference is not statistically significant between urban and suburban schools for "take more than they can eat"; between urban and rural schools for "attention on recess, free time, socializing," "not hungry," and "take more than they can eat"; and between suburban and rural schools for "attention on recess, free time, socializing" and "do not like that food."

By schools serving different proportions of free and reduced-price lunches, cafeteria managers' perceptions differed somewhat for three reasons. For example, managers in schools serving under 30 percent free and reduced-price lunches were more likely than managers in schools serving over 70 percent free and reduced-price lunches to cite "take more than they can eat" as a reason for plate waste. (See fig. 11.)

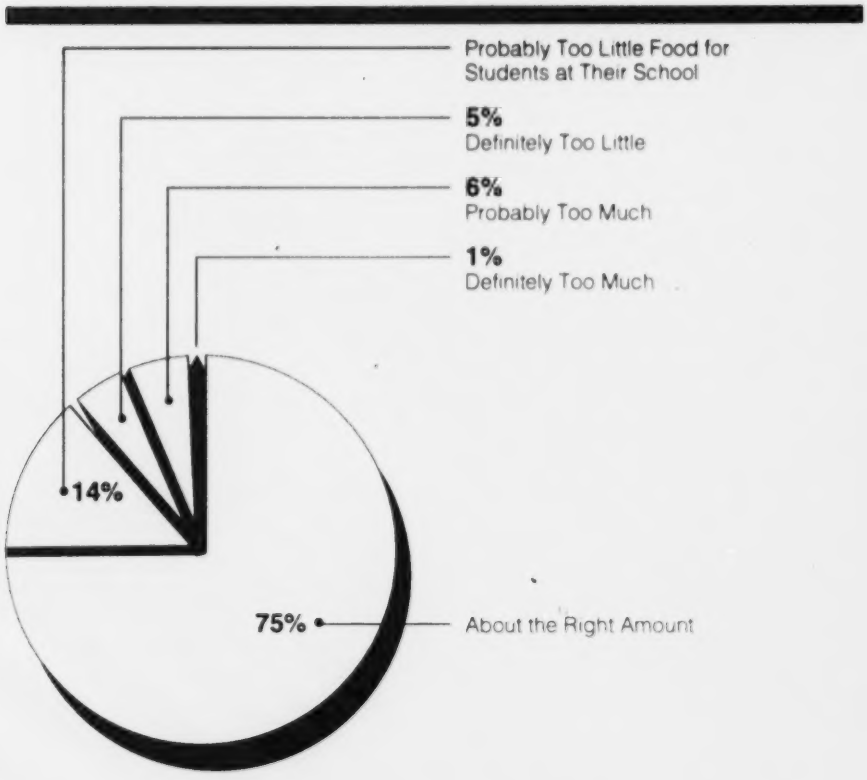
Figure 11: Variation in Reasons for Plate Waste Cited by Cafeteria Managers, by Schools Serving Different Proportions of Free and Reduced-Price Lunches



Note: The difference is not statistically significant between schools serving under 30 percent and schools serving 30 to 70 percent free and reduced-price lunches for all three reasons; between schools serving under 30 percent and schools serving over 70 percent free and reduced-price lunches for "attention on recess, free time, socializing"; and between schools serving 30 to 70 percent and schools serving over 70 percent free and reduced-price lunches for "not enough time to finish eating."

In addition to asking cafeteria managers to respond to a list of possible reasons for plate waste, we asked them to identify the effect on plate waste of the NSLP's requirements for types of food and serving sizes that were in effect at the time of our survey. The managers believed that, overall, the minimum federal serving sizes provided about the right amount of food for the students at their school. (See fig. 12.)

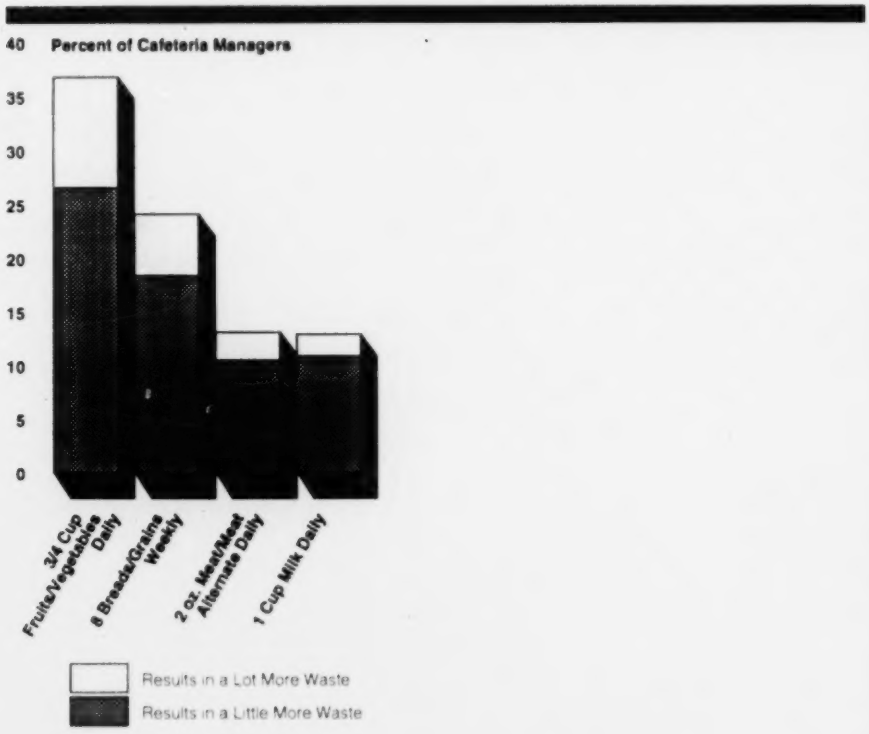
Figure 12: Cafeteria Managers' Opinions on the Minimum Serving Sizes Required by the NSLP



Note: Percents do not add to 100 because of rounding.

Furthermore, for each of four minimum serving size requirements that were in effect at the time of our survey, most cafeteria managers reported that each requirement did not result in more plate waste at their school. However, two requirements—serving at least three-fourths of a cup of fruits/vegetables daily and serving at least eight servings of breads/grains weekly—were viewed as resulting in more plate waste by about one-third and one-quarter of the managers, respectively. Figure 13 shows the percent of cafeteria managers who reported that the minimum serving sizes for the four requirements resulted in more waste.

Figure 13: Percent of Cafeteria Managers Reporting Increased Plate Waste at Their School Because of Minimum Serving Size Requirements



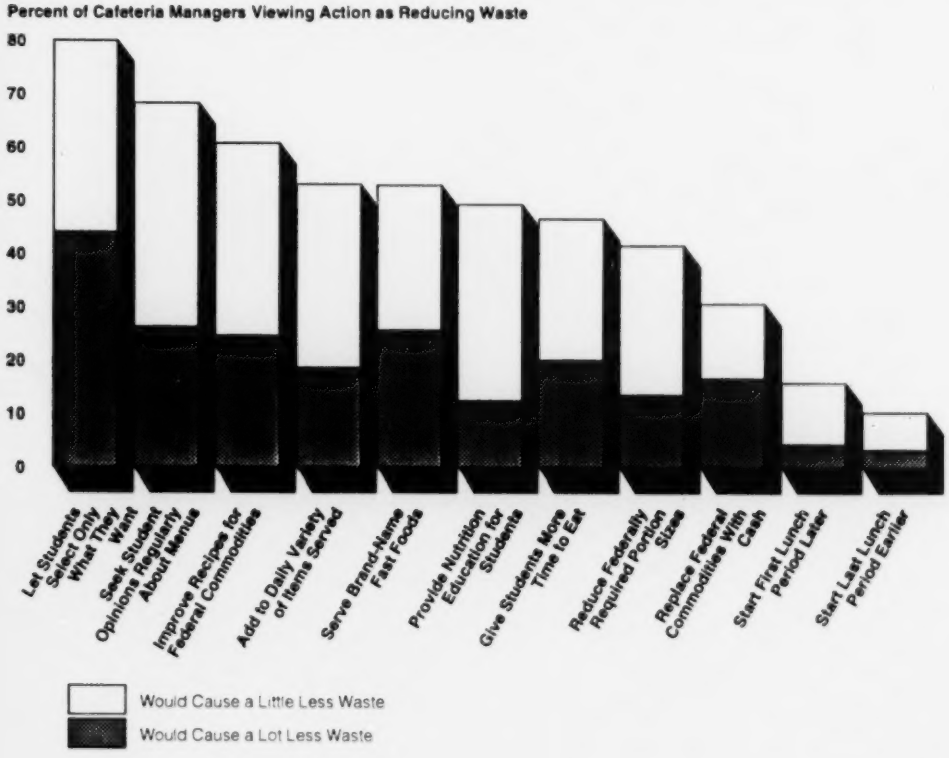
In addition, we asked cafeteria managers about the potential effect on plate waste of increasing the minimum serving sizes for fruits/vegetables and breads/grains.[6] For fruits/vegetables, 62 percent of the middle and high school managers said that increasing the amount from three-fourths of a cup to one cup daily would cause more waste. For breads/grains, 53 percent of the middle and high school managers said that increasing the number of weekly servings from 8 to 15 would increase plate waste; and 69 percent of the elementary school managers reported that increasing the number of servings of breads/grains from 8 to 12 weekly would cause more plate waste.

[6]Regulations published in the Federal Register on June 13, 1995, modified the meal pattern requirements by increasing the portion sizes for fruits/vegetables and breads/grains according to grade level. The Healthy Meals for Children Act (P.L. 104-149, May 29, 1996) modified the National School Lunch Act to allow school food authorities to use the meal pattern in effect for the 1994-95 school year. The use of this meal pattern will allow the schools to continue to use serving sizes for fruits/vegetables and breads/grains that were in effect prior to the June 13, 1995, regulations.

Ways to Reduce Plate Waste

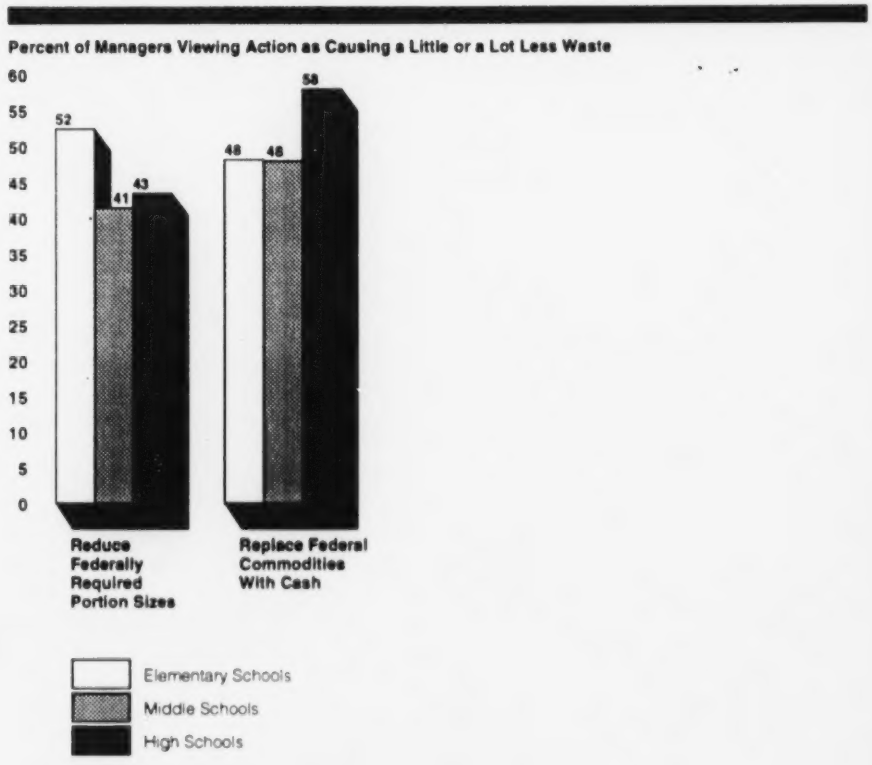
Of 11 possible actions listed in the survey to reduce plate waste, cafeteria managers viewed actions involving students in the choice of food, such as letting students select only what they want and seeking students' opinions regularly about menus, as more likely to reduce plate waste than other actions. (See fig. 14.)

Figure 14: Cafeteria Managers' Views on Ways to Reduce Plate Waste



By school level, there was some variation in the views of cafeteria managers for two of the actions to reduce plate waste listed in our survey. (See fig. 15.) For example, elementary school managers were more likely than high school managers to identify "reduce federally required portion sizes" as an action that would cause a little or a lot less plate waste.

Figure 15: Variation in Cafeteria Managers' Views on Ways to Reduce Plate Waste, by School Level



Note: The difference is not statistically significant between middle and high schools for "reduce federally required portion sizes" and "replace federal commodities with cash." For "replace federal commodities with cash," the difference is statistically significant between elementary and high schools but not between middle and high schools. Because there are more elementary schools than middle or high schools in the sample, the statistical estimates for elementary schools are more precise.

By school location, there was some variation in the views of cafeteria managers for four of the actions listed in our survey. For example, managers in urban schools were more likely than managers in rural schools to cite "seek student opinions regularly about menus" as an action that would cause less plate waste. (See fig. 16.)

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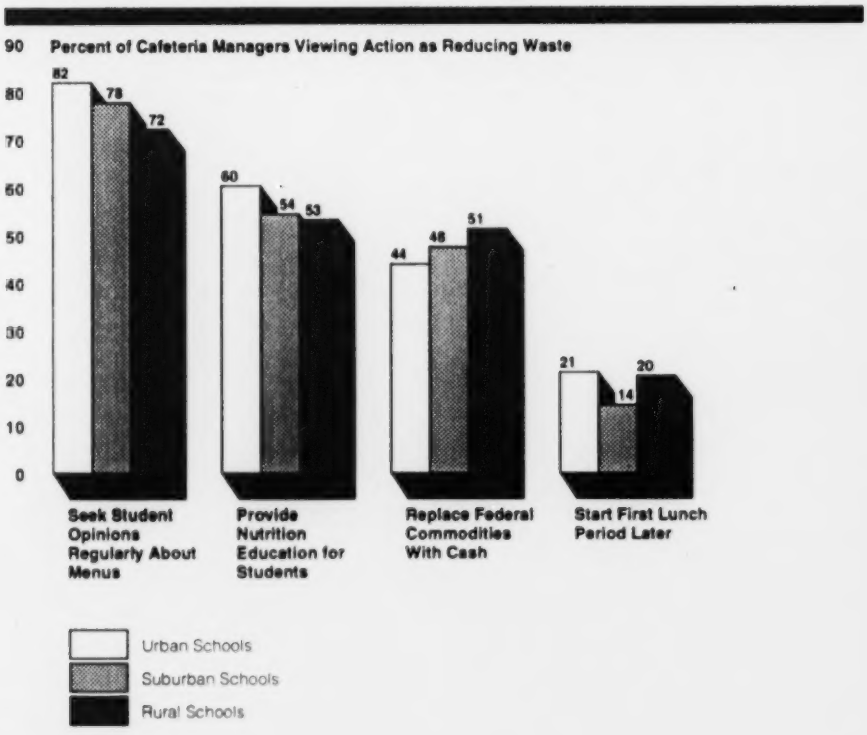
Figure 16: Variation in Ways to Reduce Plate Waste Cited by Cafeteria Managers, by School Location



Note. The difference is not statistically significant between urban and suburban schools except for "start first lunch period later," between urban and rural schools for "start first lunch period later," and between suburban and rural schools for "provide nutrition education for students" and "replace federal commodities with cash."

By schools serving different proportions of free and reduced-price lunches, there was no variation in cafeteria managers' views on ways to reduce plate waste. Managers in each group—schools serving under 30 percent free and reduced-price lunches, schools serving between 30 and 70 percent free and reduced-price lunches, and schools serving over 70 percent free and reduced-price lunches—had similar opinions about the general level of effectiveness for the 11 potential actions to reduce waste that were listed in the survey.

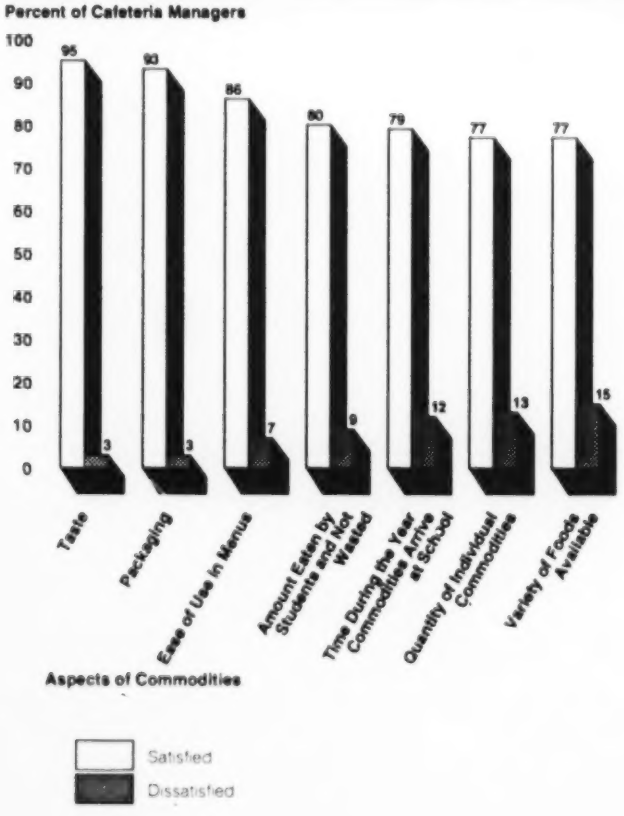
In addition, most managers reported that two approaches already in place in most schools result in less plate waste. Eighty percent of the managers

said that the OVS option results in less waste, and 55 percent said that offering more than one main dish or entree daily results in less waste.

Cafeteria Managers' Level of Satisfaction With Federal Commodities

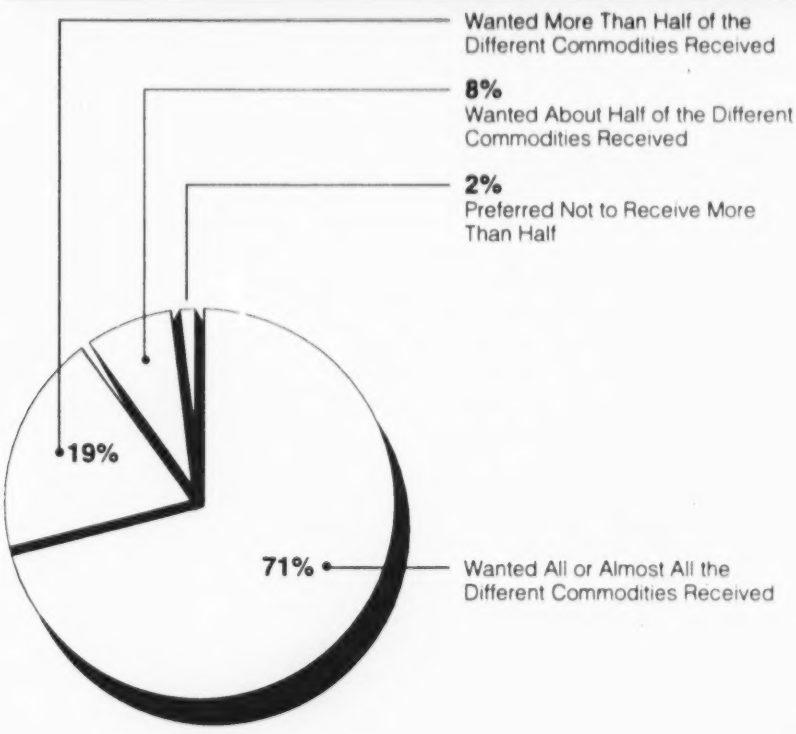
Most cafeteria managers reported satisfaction with various aspects of the federal commodities received at their school for use in school lunches. The managers' level of satisfaction was highest for the taste and packaging of the commodities and lowest for the variety of foods available and the quantity of individual commodities. Figure 17 shows the percent of cafeteria managers who were satisfied, and the percent who were dissatisfied, with the federal commodities provided for school lunches.

Figure 17: Cafeteria Managers' Satisfaction and Dissatisfaction With Federal Commodities Used for School Lunches



Over 70 percent of the managers reported that they wanted all or almost all of the different commodities received. However, about 10 percent reported that they would prefer not to receive about half or more of the different commodities they were sent. (See fig. 18.)

Figure 18: Cafeteria Managers' Views on Receiving the Different Federal Commodities


Wanted More Than Half of the Different Commodities Received
8%
Wanted About Half of the Different Commodities Received
2%
Preferred Not to Receive More Than Half
19%
71%
Wanted All or Almost All the Different Commodities Received

Agency Comments

We provided copies of a draft of this report to the Department's Food and Consumer Service for its review and comment. We met with agency officials, including the Deputy Administrator, Special Nutrition Programs.

Agency officials questioned why our survey results generalize to 80 percent, rather than 100 percent, of all the public schools that participated in the NSLP in the 1993-94 school year. Relatedly, agency officials asked if we had analyzed the characteristics of nonrespondents. We generalized our results to 80 percent of the public schools because we

used a conservative statistical approach that required us to generalize our results only to the overall level reflected by our response rate, in this case 80 percent.[7] We did not analyze the characteristics of nonrespondents because we believe that such an analysis alone would not allow us to generalize our survey results to 100 percent of the public schools that participated in the NSLP in the 1993-94 school year. To generalize to 100 percent of the public schools, we believe it would also be necessary to analyze information about perceptions of plate waste from a subsample of cafeteria managers who did not respond to our survey. This analysis would allow us to assess whether the opinions of these managers differed significantly from those of the managers who completed and returned a survey.

Further, the Department commented that our survey's list of possible reasons for plate waste did not permit cafeteria managers to select other possible reasons, including meal quality and palatability. We agree that these reasons may affect plate waste. However, we included two related reasons for plate waste—"they [students] do not like that food" and "they [students] do not like the way the food looks or tastes." We believe these two reasons address, in part, meal quality and palatability. In addition, respondents had the opportunity to identify other reasons contributing to plate waste. Less than 5 percent of the respondents specified other reasons that they considered to be at least a minor reason for plate waste.

The Department also commented that we did not solicit the views of children or their parents/caretakers. We agree that the views of cafeteria managers present only one perspective on the extent of, and reasons for, plate waste and that valuable information could be obtained from a comprehensive, nationwide study of the views of children and their parents/caretakers. The time and resources associated with such a study could be substantial.

In addition, the Department commented that our study did not address whether there was more or less plate waste in the NSLP than in other lunch settings—such as at home or in restaurants. While identifying the amount of waste in different lunch settings was not an objective of our study, our survey asked cafeteria managers if they perceived the amount of waste from school lunches as more, less, or about the same as the amount of waste from lunches brought from home. Our survey results found that, of those cafeteria managers who were able to assess differences in the

[7]Our approach is consistent with that of W.G. Cochran, Sampling Techniques, 2nd ed. (New York: John Wiley & Sons, Inc., 1967), pp. 355-357.

amount of plate waste, 79 percent believed that the amount from school lunches was less than or the same as the amount from lunches brought from home.

Finally, agency officials provided some technical and clarifying comments that we incorporated into the report as appropriate.

Scope and Methodology

To develop the questions used in our survey of cafeteria managers, we reviewed the NSLP's regulations and research addressing the issue of waste in the program. Furthermore, we spoke with representatives from school food authorities,[8] the American School Food Service Association, and the Department's Food and Consumer Service. We refined our questions by pretesting our survey with the cafeteria managers of 18 schools in Illinois, Pennsylvania, South Carolina, Texas, Virginia, West Virginia, and the District of Columbia.

We mailed our survey to a random sample of 2,450 cafeteria managers in public schools in the 50 states and the District of Columbia. We selected our sample from the 87,100 schools listed in the National Center for Education Statistics' Common Core of Data Public School Universe, 1993-94, the latest year for which a comprehensive list of public schools was available. This document did not identify whether a school participated in the NSLP. Eighty percent (1,967) of those surveyed returned a survey. Of these, about 4 percent (80) reported that their school did not participate in the NSLP, while the remainder (1,887) reported that their school participated in the program. Our survey results generalize to 65,743 of the 81,911 public schools nationwide that participated in the NSLP in the 1993-94 school year. This number may vary for individual questions, depending on the response rate to the question.

As with all sample surveys, our results contain sampling error—potential error that arises from not collecting data from the cafeteria managers at all schools. Unless otherwise indicated in appendix I, the sampling error for the survey results presented in this report is plus or minus no more than 5 percentage points.

Sampling error must be considered when interpreting differences between subgroups, such as urban and rural schools. All differences we report are statistically significant unless otherwise noted. Statistical significance

[8]School food authorities are responsible for the management of school food services at one or more schools and have the legal authority to operate the NSLP.

means that the difference we observed between subgroups is too large to be attributed to chance.

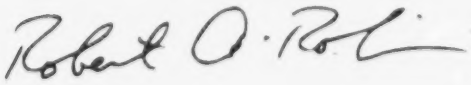
We conducted our review from July 1995 through June 1996 in accordance with generally accepted government auditing standards. We did not, however, independently verify the accuracy of the cafeteria managers' responses to our survey.

Appendix II contains a more detailed description of our survey methodology. Appendix III contains a copy of our survey and summarizes the responses.

As agreed with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 7 days from the date of this letter. At that time, we will send copies of this report to the appropriate congressional committees, interested Members of Congress, the Secretary of Agriculture, and other interested parties. We will also make copies available to others on request.

If you have any questions, please call me at (202) 512-5138. Major contributors to this report are listed in appendix IV.

Sincerely yours,



Robert A. Robinson
Director, Food and
Agriculture Issues

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Abbreviations

NSLP	National School Lunch Program
SMSA	Standard Metropolitan Statistical Area
OVS	Offer vs. serve

Estimates With Sampling Errors That Exceed 5 Percent for Percents Presented in This Report

Sampling errors in percent

Description	Estimated percent	Sampling error
Middle school cafeteria managers reporting students "do not like that food" as reason for plate waste at their school (fig. 9)	69.4	6.0
High school cafeteria managers reporting students "do not like that food" as reason for plate waste at their school (fig. 9)	71.4	6.2
Middle school cafeteria managers reporting students "take more than they can eat" as reason for plate waste at their school (fig. 9)	43.9	6.6
High school cafeteria managers reporting students "take more than they can eat" as reason for plate waste at their school (fig. 9)	60.5	6.9
Middle school cafeteria managers reporting that "amount served is too much for age or gender" as reason for plate waste at their school (fig. 9)	18.1	5.1
High school cafeteria managers reporting "amount served is too much for age or gender" as reason for plate waste at their school (fig. 9)	23.2	5.9
Urban school cafeteria managers reporting "not hungry" as reason for plate waste at their school (fig. 10)	58.1	5.6
Suburban school cafeteria managers reporting "not hungry" as reason for plate waste at their school (fig. 10)	48.4	5.3
Urban school cafeteria managers reporting "take more than they can eat" as reason for plate waste at their school (fig. 10)	50.5	5.4
Cafeteria managers at schools serving over 70 percent free and reduced-price lunches reporting students "take more than they can eat" as reason for plate waste at their school (fig. 11)	45.9	5.2
Middle school cafeteria managers reporting "reduce federally required portion sizes" as a way to reduce plate waste (fig. 15)	41.4	6.2
High school cafeteria managers reporting "reduce federally required portion sizes" as a way to reduce plate waste (fig. 15)	43.4	6.7
Middle school cafeteria managers reporting "replace federal commodities with cash" as a way to reduce plate waste (fig. 15)	47.9	7.7
High school cafeteria managers reporting "replace federal commodities with cash" as a way to reduce plate waste (fig. 15)	57.9	7.3
Urban school cafeteria managers reporting "replace federal commodities with cash" as a way to reduce plate waste (fig. 16)	43.9	6.2
Suburban school cafeteria managers reporting "replace federal commodities with cash" as a way to reduce plate waste (fig. 16)	47.5	5.7

Scope and Methodology

The Chairman of the House Committee on Economic and Educational Opportunities asked us to study plate waste in the National School Lunch Program (NSLP). Specifically, we agreed to survey cafeteria managers in public schools nationwide that participate in the NSLP to obtain their perceptions on the (1) extent to which plate waste is a problem, (2) amount of plate waste by type of food, and (3) reasons for and ways to reduce plate waste. We agreed to determine whether the perceptions of managers differed by their school's level (elementary, middle, or high school), their school's location (urban, suburban, or rural), and the proportion of their school's lunches served free and at a reduced price (under 30 percent free and reduced price, 30 to 70 percent free and reduced price, or over 70 percent free and reduced price). In addition, we agreed to ask cafeteria managers about their level of satisfaction with federal commodities used in the program.

To develop the questions used in our survey of cafeteria managers, we reviewed the NSLP's regulations and research addressing the issue of waste in the program. Furthermore, we spoke with representatives from school food authorities,[9] the American School Food Service Association, and the U.S. Department of Agriculture's Food and Consumer Service. We refined our questions by pretesting our survey with the cafeteria managers of 18 schools in Illinois, Pennsylvania, South Carolina, Texas, Virginia, West Virginia, and the District of Columbia. Generally, the questions on our survey concerned the 1995-96 school year.

We mailed our survey to a random sample of 2,450 cafeteria managers in public schools in the 50 states and the District of Columbia. We selected our sample from the 87,100 schools listed in the National Center for Education Statistics' Common Core of Data Public School Universe, 1993-94, the latest year for which a comprehensive list of public schools was available from the National Center for Education Statistics. This document did not identify whether a school participated in the NSLP. We sent as many as two followup mailings to each cafeteria manager to encourage response. Eighty percent (1,967) of those surveyed returned a survey. Of these, about 4 percent (80) reported that their school did not participate in the NSLP, while the remainder (1,887) reported that their school participated in the program. Our survey results generalize to 65,743 of the 81,911 public schools nationwide that participated in the NSLP in the 1993-94 school year. This number may be lower for individual questions, depending on the response rate for the question.

[9]School food authorities are responsible for the management of school food services at one or more schools and have the legal authority to operate the NSLP.

The results of our survey of cafeteria managers cannot be generalized to schools that opened after school year 1993-94; to private schools; to most residential child care institutions; to schools in the U.S. territories; and to schools represented by the survey nonrespondents.

We matched the 1,887 survey responses to information about each school in the Common Core of Data. We used the Common Core of Data to identify school location and to validate survey responses on student enrollment and school level. From this validation, we determined that a number of the surveys were completed for the surveyed school's district rather than for the individual school. In those cases, we used information from the Common Core of Data to determine the surveyed school's level (e.g., elementary) and student enrollment. We assumed that the school served the same proportion of free and reduced-price lunches as the district. Unless otherwise stated in the survey response, we also assumed that districtwide opinions about plate waste applied to the surveyed school.

Table II.1 shows the number of cafeteria managers responding to our survey, by school level.

Table II.1: Number of Cafeteria Managers Responding, by School Level

School level	Number responding	Percent of total
Elementary	1,181	62.6
Middle	277	14.7
High	256	13.6
Other	173	9.1

Note: We defined an elementary school as any school serving children in grade 6 and under or any school serving children through grade 8 provided that the school also serves children in grade 3 or under. We defined a middle school as any school with a minimum grade level of 4 through 8 and a maximum grade level of 7 through 9. We defined a high school as any school serving children only in grades 9 and up. Some schools, such as those serving children in kindergarten through grade 12, did not meet these definitions, and we did not include them in our analysis of differences by school level.

Table II.2 shows the number of cafeteria managers responding, by school location.

Table II.2: Number of Cafeteria Managers Responding, by School Location

School location	Number responding	Percent of total
Urban	426	22.6
Suburban	472	25.0
Rural	989	52.4

Note: We defined urban as large and mid-size central cities of standard metropolitan statistical areas (SMSAs). We defined suburban as the urban fringe of large and mid-size cities in SMSAs and large towns not in SMSAs with populations of 25,000 or more. We defined rural as areas with populations of less than 2,500 as well as small towns not in SMSAs.

Table II.3 shows the number of cafeteria managers responding, by schools serving different proportions of free and reduced-price lunches.

Table II.3: Number of Cafeteria Managers Responding, by Schools Serving Different Proportions of Free and Reduced-Price Lunches

Schools serving different proportions of free and reduced-price lunches	Number responding	Percent of total
Schools serving under 30 percent	451	23.9
Schools serving 30 to 70 percent	811	43.0
Schools serving over 70 percent	445	23.6
Undetermined	180	9.5

As with all sample surveys, our results contain sampling error—potential error that arises from not collecting data from cafeteria managers at all schools. We calculated the sampling error for each statistical estimate at the 95-percent confidence level. This means, for example, that if we repeatedly sampled schools from the same universe (i.e., Common Core of Data) and performed our analyses again, 95 percent of the samples would yield results within the ranges specified by our statistical estimates, plus or minus the sampling errors. In calculating the sampling errors, we used a conservative formula that did not correct for sampling from a finite population. The sampling error for most of the survey results presented in this report is plus or minus no more than 5 percentage points.

Sampling error must be considered when interpreting differences between subgroups, such as urban and rural schools. For each comparison of

subgroups that we report, we calculated the statistical significance of any observed differences. Statistical significance means that the difference we observed between two subgroups is larger than would be expected from the sampling error. When this occurs, some phenomenon other than chance is likely to have caused the difference. Statistical significance is absent when an observed difference between two subgroups, plus or minus the sampling error, results in an interval that contains zero. The absence of a statistically significant difference does not mean that a difference does not exist. The sample size or the number of respondents to a question may not have been sufficient to allow us to detect a difference. We used the chi square test of association to test the significance of differences in percentages between two subgroups and the t-test for differences in means.

We conducted our review from July 1995 through June 1996 in accordance with generally accepted government auditing standards. We did not, however, independently verify the accuracy of the cafeteria managers' responses to our survey.

Results of Survey of School Cafeteria Managers

United States General Accounting Office

GAO

Survey of Cafeteria Managers Concerning the National School Lunch Program

Instructions

The General Accounting Office (GAO) is reviewing the National School Lunch Program for the U.S. Congress. As part of our review, we are surveying cafeteria managers about their school lunches.

Your school was selected at random to be in the survey. Your response will be combined with others to give the Congress information about the 1995-96 school year.

Please return your completed survey in the enclosed envelope within 2 weeks. This will help us avoid costly follow-up mailings. The return address is:

Ms. Rosellen McCarthy
U.S. General Accounting Office
441 G Street, N.W. Room 1826
Washington, D.C. 20548

If you have any questions, please call Rosellen McCarthy at (202) 512-4916 or Jay Scott at (202) 512-9904. Thank you for your cooperation.

Definitions

A **school lunch** is one that qualifies for reimbursement through the National School Lunch Program. A school lunch includes free, reduced-pay, and full-pay lunches. It does not include lunches that do not qualify for reimbursement.

Plate Waste is food that is served or sold to students or brought from home, but is not eaten.

→ ***Analysis Note:*** Percentages within each question do not sum to 100 percent because not all managers answered each question.

Background

1. Do you serve lunches that are reimbursed through the National School Lunch Program? *(Check one.)*

1,887 Yes →*Please continue.*
80 No →*Stop. Please return survey.*

2. Which of the following tasks do you perform as cafeteria manager for this school? *(Check all that apply.)*

50.3% Plan menus
27.1% Select vendors
82.9% Order or purchase food
89.3% Keep an inventory of food
87.1% Prepare food or supervise food preparation
17.5% Prepare food for satellite cafeterias
86.0% Supervise cafeteria staff
29.6% Keep a budget
20.8% Use a computer to plan/order/budget lunch meals
72.0% Handle money
76.9% Keep records on number of free, reduced-pay, and full-pay school lunches
5.9% Other *(Please specify.)*

3. Which of the following best describes this school's menu planning? *(Check one.)*

26.6% Menus are generally planned at this school
66.3% Menus are generally planned by the school food authority or school district
5.9% Other *(Please specify.)*

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4. About how often do you repeat school lunch menus? *(Check one.)*

3.1% Every week
7.9% Every 2 weeks
11.2% Every 3 weeks
20.9% Every 4 weeks
36.6% Every month or more
15.6% Do not repeat menus

5. What time in the morning do students at this school begin classes on a typical school day? *(Enter time.)*

8:15 a.m. (median)

6. When do you begin serving lunch to students and when does the last lunch period end? *(Enter times.)*

11:00 a.m. (median) first lunch period begins
12:39 p.m. (median) last lunch period ends

7. How much time, on average, does a student get to eat lunch after being served? *(Enter number.)*

20 minutes (median)

8. To which of the following grades do you serve lunch in this school? *(Check all that apply.)*

43.8% Pre-school and/or Kindergarten
59.8% 1st Grade
59.6% 2nd Grade
59.5% 3rd Grade
59.4% 4th Grade
57.7% 5th Grade
42.2% 6th Grade
30.0% 7th Grade
29.8% 8th Grade
20.7% 9th Grade
20.8% 10th, 11th, 12th Grade
4.1% Other *(Please specify.)*

9. About how many students are enrolled in the grades you serve lunch? *(Enter number.)*

561 students enrolled (average for 1,778 schools)

10. Does this school have a program that allows all students to get a *free* lunch whether or not they are financially eligible for a free or reduced-pay school lunch? *(Check one.)*

13.2% Yes
84.2% No

11. On a typical day, how many school lunches are claimed as free, reduced-pay, and full-pay? *(Enter numbers.)*

If you do not know these numbers, please have the appropriate person fill them in.

_____ free lunches

_____ reduced-pay lunches

_____ full-pay lunches

_____ TOTAL school lunches

→*Analysis Note:* Data from this question are reported in Appendix II.

Extent of Plate Waste in 1995-96 School Year

12. How often this year, if at all, have you personally observed how much student plate waste (i.e., food that is purchased, served, or brought from home but not eaten) there is in this school's cafeteria? *(Check one.)*

10.8% Seldom if ever
31.0% On occasion (a few times each month)
21.5% Often (about every week)
14.1% Very often (a few times each week)
21.1% Daily

2

13. When you serve each of the following foods as part of a school lunch this year, about how much of the portions, on average, do students generally throw away or waste? *(Check one for each food item.)*

Food in School Lunch	Students Throw Away or Waste: Hardly Any or None (1)	Less Than Half (2)	About Half (3)	More Than Half (4)	All or Almost All (5)	Cannot Estimate (6)
1. Breads and other grains (e.g., spaghetti, rice, pizza crust)	55.9%	29.4%	5.9%	1.5%	0.4%	4.6%
2. Fresh fruit	38.7%	33.8%	13.9%	4.8%	0.7%	5.4%
3. Canned or processed fruit	39.2%	34.3%	13.4%	4.2%	0.7%	4.7%
4. Raw vegetables/salad	25.7%	36.0%	18.4%	9.4%	2.0%	4.9%
5. Cooked vegetables	12.4%	30.4%	25.0%	18.2%	4.7%	5.4%
6. Milk	62.4%	24.3%	4.4%	1.3%	0.6%	4.7%
7. Meats	51.2%	33.4%	5.8%	0.8%	0.5%	4.6%
8. Meat alternates (e.g., beans, eggs, cheese, peanut butter)	35.5%	38.6%	10.6%	3.7%	0.7%	6.9%

14. In your opinion, how much of a reason are each of the following for explaining why students at this school do not eat all of the school lunch food they are served or that they take? *(Check one for each.)*

	Major Reason (1)	Moderate Reason (2)	Minor Reason (3)	Little or No Reason (4)	Do Not Know (5)
1. They are not hungry at lunch time.	4.0%	12.4%	25.7%	31.4%	17.4%
2. They do not like that food.	19.3%	22.7%	23.1%	20.5%	6.8%
3. They do not like the way the food looks or tastes.	5.5%	16.9%	27.5%	32.0%	8.8%
4. They take more than they can eat.	10.2%	14.3%	18.4%	38.2%	8.7%
5. The amount served is too much for their age or gender.	3.6%	8.9%	18.5%	51.8%	7.4%
6. They also bring food from home to eat.	4.9%	10.8%	21.5%	35.0%	17.9%
7. Their attention is more on recess, free time or socializing than eating.	39.7%	25.2%	12.6%	9.8%	7.0%
8. There is not enough time to finish eating.	10.0%	15.6%	18.5%	41.8%	5.5%
9. They are sick.	3.2%	2.8%	12.4%	40.8%	30.9%
10. Other *(Please specify.)*	3.1%	1.3%	0.4%	0.5%	4.1%

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15. Compared to those who bring a lunch from home ("packers"), do students who get a school lunch have more or less plate waste, on average? *(Check one.)*

4.0% Much more plate waste than packers
9.4% Somewhat more than packers
26.7% About the same as packers
10.1% Somewhat less than packers
11.0% Much less than packers
16.0% Can't tell the difference between packed and school lunch waste
20.7% Few, if any, packed lunches at this school

16. Think about the total amount of plate waste from school lunches in a typical week. Is this total waste more, less or about the same amount of food that is thrown away by your kitchen during food preparation or because of leftovers? *(Check one.)*

37.6% Student waste is much more
29.0% Student waste is somewhat more
26.0% Student and kitchen waste, if any, are about the same
2.1% Kitchen waste is somewhat more
0.3% Kitchen waste is much more

17. Do you expect plate waste from your school lunches to increase, decrease, or remain the same during the rest of the 1995-96 school year? *(Check one.)*

0.5% Greatly increase
2.1% Somewhat increase
65.8% Remain about the same
12.9% Somewhat decrease
3.6% Greatly decrease
14.1% Can't estimate

18. This year, how much of a problem, if any, is plate waste from your school lunches? *(Check one.)*

48.8% Little or no problem
19.9% Some problem
17.7% Moderate problem
2.1% Great problem
0.6% Very great problem
9.6% Don't know if it is a problem or not

19. Does this school have offer vs. serve for some or all of the students? *(Check one.)*

77.3% Offer vs. serve for all students
9.1% Offer vs. serve for some students
12.5% Do not have offer vs. serve

20. In your opinion, does offer vs. serve cause more or less plate waste than making students take all 5 items? *(Check one.)*

1.7% A lot more waste with offer vs. serve
2.4% A little more waste with offer vs. serve
4.8% No difference
17.9% A little less waste with offer vs. serve
61.8% A lot less waste with offer vs. serve
9.7% No basis to judge

21. Does this school offer more than one main dish or entree every day? *(Check one.)*

59.8% Yes
39.5% No

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22. In your opinion, does offering more than one main dish cause more or less plate waste from school lunches? *(Check one.)*

2.9% A lot more waste
3.2% A little more waste
10.4% No difference in amount of waste
14.8% A little less waste
40.6% A lot less waste
26.3% No basis to judge

23. Does this school prepare or cook its own school lunches on-site or are school lunches prepared somewhere else (off-site) and delivered to this school? *(Check one.)*

74.9% Lunches prepared at this school (on-site)
13.9% Lunches prepared somewhere else (off-site)
10.8% Some lunches prepared on-site and some off-site

24. In your opinion, does preparing food on-site or off-site cause more plate waste from school lunches or is there no difference? *(Check one.)*

0.4% A lot more waste with on-site
2.3% A little more waste with on-site
25.5% No difference
9.9% A little more waste with off-site
10.7% A lot more waste with off-site
50.0% No basis to judge

25. Does this school use a private company to manage its food services? *(Check one.)*

10.8% Yes
88.1% No

26. In your opinion, does the use of a private company to manage food services cause more or less plate waste from school lunches? *(Check one.)*

7.5% A lot more waste with a private company
2.0% A little more waste with a private company
6.4% No difference in amount of waste
1.8% A little less waste with a private company
3.2% A lot less waste with a private company
75.5% No basis to judge

27. In addition to school lunches, does this school offer foods (other than milk) a la carte or from a canteen during lunch (not including vending machines)? *(Check one.)*

68.4% Yes
31.3% No

28. In your opinion, do a la carte or canteen sales during lunch cause more or less plate waste from school lunches? *(Check one.)*

5.6% A lot more school lunch waste when a la carte or canteen sales are allowed
7.8% A little more school lunch waste when a la carte or canteen sales are allowed
26.8% No difference in amount of school lunch waste
4.6% A little less school lunch waste when a la carte or canteen sales are allowed
9.1% A lot less school lunch waste when a la carte or canteen sales are allowed
43.9% No basis to judge

29. Does this school let students use vending machines during lunch? *(Check one.)*

23.1% Yes
76.1% No

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30. Which of the following foods does this school sell separately to students, either as an a la carte item or from canteens or from vending machines during lunch or at other times of the day? *(Check all that apply. Please look at machines and canteens if unsure.)*

→*Analysis Note:* Data from this question will be included in a GAO report dealing with the use of food service management companies scheduled to be issued in the fall of 1996.

		Sold During Lunch		Sold At Other Times		
	Not Sold Separately (1)	A La Carte or Canteen (2)	In Vending Machines (3)	A La Carte or Canteen (4)	In Vending Machines (5)	At Breakfast (6)
1. Milk						
2. Juice						
3. Carbonated soft drinks/pop						
4. Fruits						
5. Yogurt						
6. Crackers						
7. Nuts, seeds						
8. Chips (e.g., corn, potato, tortilla)						
9. Cakes, pastries, cookies, etc.						
10. Candies						
11. Ice Cream						
12. Other *(Please specify.)*						

31. In your opinion, does the use of vending machines by students during lunch cause more or less plate waste from school lunches? *(Check one.)*

9.0% A lot more school lunch waste when students use vending machines

5.0% A little more school lunch waste when students use vending machines

13.3% No difference in amount of school lunch waste

1.2% A little less school lunch waste when students use vending machines

0.9% A lot less school lunch waste when students use vending machines

66.9% No basis to judge

32. What effect, if any, do each of the following specific federal requirements have on plate waste at this school? *(Check one for each.)*

	Requirement Results In					
	A Lot More Waste (1)	A Little More Waste (2)	No effect (3)	A Little Less Waste (4)	A Lot Less Waste (5)	No Opinion (6)
1. Serve at least 2 oz. of meat or meat alternate (e.g., peanut butter)	2.6%	10.5%	58.7%	7.3%	10.2%	6.9%
2. Serve at least 3/4 cup of fruits/vegetables	10.2%	26.6%	39.3%	7.0%	7.2%	6.4%
3. Serve at least 1 cup of milk	2.0%	10.9%	59.5%	5.6%	11.3%	6.8%
4. Serve at least 8 breads/grains weekly	5.7%	18.4%	48.2%	7.1%	9.6%	6.5%
5. Offer whole and lowfat white milk	2.4%	5.5%	58.3%	7.8%	13.8%	7.7%
6. Require at least 3 items in offer-vs.-serve	2.5%	12.1%	34.5%	12.5%	22.0%	12.1%

33. Overall, in your opinion, do the minimum serving sizes required by the National School Lunch Program provide too little, too much or about the right amount of food for students at this school? *(Check one.)*

4.5% Definitely too little
13.6% Probably too little
73.8% About the right amount
5.6% Probably too much
0.7% Definitely too much

34. In your opinion, what effect, if any, would there be on plate waste if the following changes were made? *(Check one for each.)*

	Change Would Cause					
Change	A Lot More Waste (1)	A Little More Waste (2)	No effect (3)	A Little Less Waste (4)	A Lot Less Waste (5)	No Opinion (6)
1. Increase serving to 1 cup daily of fruits/vegetables	35.5%	33.4%	21.0%	2.3%	1.0%	4.8%
2. Increase breads/grains to 15 weekly for grades 7-12	22.9%	24.1%	23.3%	3.2%	1.6%	19.7%
3. Increase breads/grains to 12 weekly for grades K-6	32.5%	29.6%	18.0%	3.9%	0.8%	11.0%

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35. In your opinion, what effect, if any, would there be on plate waste if schools were to take the following actions? *(Check one for each.)*

Possible Action	Action Would Cause: A Lot More Waste (1)	A Little More Waste (2)	No effect (3)	A Little Less Waste (4)	A Lot Less Waste (5)	No Opinion (6)
1. Provide more or better nutrition education for students	0.3%	1.7%	37.9%	36.8%	12.3%	6.4%
2. Allow students to select only what they want to eat	1.2%	1.3%	10.5%	35.9%	43.9%	4.1%
3. Reduce the federally required portion sizes	0.4%	0.7%	42.7%	28.0%	13.4%	9.9%
4. Add to daily variety of items served	2.2%	5.4%	26.9%	34.4%	18.5%	7.4%
5. Improve the recipes and serving ideas for federal commodities	0.3%	0.5%	26.3%	36.1%	24.5%	8.2%
6. Seek student opinions regularly about menus	0.4%	0.4%	21.0%	42.0%	26.1%	5.9%
7. Start first lunch period later	0.5%	0.8%	66.0%	11.5%	4.2%	13.0%
8. Start last lunch period earlier	0.8%	2.1%	69.4%	7.0%	3.2%	13.2%
9. Give students more time to eat lunch	0.2%	0.6%	42.9%	26.5%	19.9%	8.5%
10. Serve brand name fast foods (e.g., Taco Bell, Pizza Hut)	1.5%	1.0%	20.5%	27.2%	25.5%	19.6%
11. Replace federal commodities with cash	1.3%	0.5%	30.2%	14.0%	16.5%	31.2%
12. Other *(please specify)*	0.1%	0.0%	0.4%	0.4%	1.3%	2.9%

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36. Which of the following best describes this school's policy on students leaving school grounds for lunch? *(Check one.)*

(73)

6.5% All students permitted to leave

21.1% Some students permitted to leave

70.1% No students permitted to leave

3.0% Do not know school policy

37. On a typical day, about what percentage of the students leave school grounds for lunch? *(Enter number.)*

(74-76)

4% (average)

Use of Brand Name Fast Foods

→*Analysis Note:* Data from questions 38 through 42 will be included in a GAO report dealing with the use of food service management companies scheduled to be issued in the fall of 1996.

38. Are you currently using or do you plan to use brand name fast foods this year in your school lunch program (e.g., Pizza Hut pizza, Taco Bell tacos, Subway sandwiches, but not including brand name drinks, yogurt or snacks)? *(Check one.)*

(77)

____ Currently using

____ Plan to use this year

____ Not using and not planning to use this year

39. In which of the following years, if any, have brand name fast foods been available in this school's lunch program? *(Check all that apply.)*

(78-81)

____ Have not used brand name fast foods in lunch program

____ Prior to 1990-91

____ 1990-91

____ 1991-92

____ 1992-93

____ 1993-94

____ 1994-95

40. Which of the following reasons best explains why you have or have not used brand name fast foods in this school's lunch program? *(Check all that apply.)*

(82-90)

Reasons for Using in This School

____ Believed more students would participate

____ Students asked for them

____ Parents suggested it

____ Wanted to reduce plate waste

____ Wanted to contain program costs

____ Did not have on-site cooking facilities

____ School food authority or district decided

____ Vendor did a good job of selling idea

____ Other *(Please specify.)*

Reasons for Not Using in This School

____ School food authority or district prohibits

____ State regulations or state agency prohibits

____ Most parents are opposed

____ The foods cost too much

____ Food currently being served is more nutritious

____ Other *(Please specify.)*

41. What effect, if any, did using brand name fast foods in this school's lunch program have on each of the following? *(Check one for each.)*

	Went Up a Lot (1)	Went Up a Little (2)	No Effect (3)	Went Down a Little (4)	Went Down a Lot (5)	Do Not Know (6)	Does Not Apply (7)
1. Amount of money taken in from school lunch and a la carte sales							
2. Number of students getting a school lunch							
3. Number of students leaving school grounds during lunch							
4. Student satisfaction with school lunch							
5. Amount of plate waste in general							
6. Number of food service workers at this school							
7. Ease of serving the food to students							
8. Other *(Please specify.)*							

42. Please list below the brand name and type of each fast food you currently offer. Place a checkmark for each item that is offered a la carte or as part of a school lunch. Also enter the number of days each item is on the school lunch menu. *(Please add lines if you offer more than 7 items.)*

	Fast Foods Currently Offered		How Offered		How Often	
	Brand Name (e.g., Pizza Hut)	Type of Food (e.g., burrito)	A La Carte	Part of School Lunch	Days in a Week	Days in a Month
1.						
2.						
3.						
4.						
5.						
6.						
7.						

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Commodities

43. Think about the federal commodities you received this year for school lunches. Overall, how satisfied or dissatisfied are you with each of the following? *(Check one for each.)*

	Very Satisfied (1)	Generally Satisfied (2)	Neither (3)	Generally Dissatisfied (4)	Very Dissatisfied (5)
1. How they taste	28.0%	61.0%	2.2%	2.5%	0.4%
2. How they are packaged	26.9%	62.4%	3.7%	0.3%	6.0%
3. Time during year they arrive at school	17.6%	56.5%	8.5%	9.2%	2.1%
4. Ease of using them in your menus	21.8%	57.4%	6.7%	6.1%	7.4%
5. Variety of foods available	16.5%	56.8%	7.6%	11.7%	2.3%
6. Quantity of individual commodities	16.2%	56.6%	9.3%	10.0%	1.7%
7. Amount eaten by students and not wasted	13.2%	60.7%	10.1%	7.4%	1.0%
8. Other *(Please specify.)*	0.5%	0.6%	0.5%	0.8%	1.0%

44. Considering all the different commodities you receive, such as chicken nuggets, canned peas, and fresh apples, about how many are the ones you want to receive and about how many are ones you would prefer not to receive? *(Check one.)*

65.9% Want all or almost of all of those received

17.1% Want more than half of those received

7.7% Want about half and prefer not to receive about half

1.6% Prefer not to receive more than half

0.3% Prefer not to receive all or almost all

45. *Comments.* Please feel free to provide any other comments you may have in the space below. We are especially interested in any efforts at your school to reduce plate waste or any suggestions you may have for reducing it.

34% provided comments

Thank you for your cooperation.

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